

WHAT IS CLAIMED IS:

1. A method of identifying an association between a composition and a biological parameter, the method comprising

5 contacting the composition to a test cell or administering the composition to a test organism;

 evaluating the test cell or test organism to determine a profile that comprises one or more parameters;

 comparing the profile to a database of profile to obtain an evaluation of whether the
10 composition modulates a lifespan-extending trait.

2. The method of claim 1 wherein the composition comprises a nutraceutical or natural product.

15 3. A method of improving health of an individual, the method comprising:

 evaluating a longevity-associated gene of a subject; and

 if the subject has a detrimental allele of the gene, providing, to the subject, a natural product that modulates expression or activity of the gene or its gene product.

20 4. The method of claim 3 wherein the subject is a human.

5. The method of claim 3 wherein the gene is MTP or CETP.

6. A method of improving health of an individual, the method comprising:

25 administering a nutraceutical to a subject who has a detrimental allele of MTP, wherein the nutraceutical increases expression of the MTP gene.

7. The method of claim 6 wherein the nutraceutical comprises a garlic extract or a citric flavenoid.

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8. A method of improving health of an individual, the method comprising:
administering a nutraceutical to a subject who has a detrimental allele of CETP,
wherein the nutraceutical increases HDL levels.

5 9. The method of claim 8 wherein the nutraceutical comprises a niacin.

10 10. A method comprising:
 determining a biological parameter of a subject;
 comparing the parameter to a database of parameters of protective individuals
and associated natural products; and
 recommending a natural product based on a comparison of the parameter for
the subject and information in the database.

15 11. The method of claim 10, wherein the parameter relates to expression or activity
of a gene or protein.

 12. The method of claim 10, wherein the parameter relates to a protein modification
or protein localization.

20 13. The method of claim 10, wherein the parameter relates to the MTP or CETP
gene or gene product.

 14. The method of claim 10, wherein the comparison is made using profiles that
each comprise a plurality of parameters.

25 15. The method of claim 10, wherein the comparison is made using a distance
function.

30 16. The method of claim 10, wherein the recommendations are delivered across a
network.

17. The method of claim 10, wherein the recommendations are accessible through a web site.

18. The method of claim 10, wherein the subject is monitored before, during, or
5 after administering the recommended natural product.

19. A method of identifying an association between a test compound and a biological parameter, the method comprising:

10 contacting the composition to a test cell that is not a protective cell or an organism that is not a protective individual;

determining a biological parameter of the test cell or organism;

evaluating if the composition alters a parameter of the test organism to provide a protective effect characteristic of parameters of protective individuals.

15 20. The method of claim 19, wherein the composition is a nutraceutical.

21. The method of claim 19, wherein the composition is a diet or dietary substance.

22. The method of claim 19, wherein the test cell is derived from an organism that
20 does not have a lifespan-extending trait, or the test organism does not have a life-span extending trait.

23. The method of claim 22, wherein the trait is an allele of the MTP gene.

25 24. The method of claim 22, wherein the trait is an allele of the CETP gene.

25. A method of identifying a composition, the method comprising:

providing a desirable profile from a protective individual or materials derived therefrom;

30 screening test compositions using a non-protective individual or materials derived therefrom;

selecting a composition that changes the profile of the non-protective individual or materials derived therefrom so that it becomes more similar to that of the protective individual.